

Dietary diversity and consumption of foods from different food groups among small holder women farmers in Kenya, Malawi and Uganda M. Gracia Glas^{1,4}, Lydiah Waswa,² Anna Röhlig^{1,4}, Ernst-August Nuppenau³, Michael B. Krawinkel⁴, Irmgard Jordan^{1,4}

¹Centre for Environmental Sciences and International Research (ZEU), University of Giessen (Germany), ²Faculty of Nutritional Sciences, Egerton University (Kenya), ³Institute for Agricultural Policy and Market Research, University of Giessen (Germany), ⁴Institute of Nutritional Sciences, University of Giessen (Germany)

Background

- Inadequate dietary intake among women remains a challenge of reproductive age, particularly in developing countries.¹
- These women are often nutritionally vulnerable due to their increased nutrient requirements and disadvantages in intrahousehold distribution of nutrient-dense foods.²



This study compares their dietary diversity and consumpti-on of foods in three African countries (Teso Sub-county (Kenya), Kapchorwa District (Uganda) and Lilongwe District (Malawi).



Figure I: Map of the three study regions. © Gomez/HealthyLAND

Methods

- May-Nov 2016: Cross-sectional agriculture nutrition baseline surveys in all three countries
- Targeting 1263 farm households with children < 5 years
- Semi-structured questionnaires: to assess demographic and socio-economic characteristics
- Minimum Dietary Diversity Score for Women (MDD-W, max 10 groups) calculated based on data from 24h-recalls
- Anthropometric measurements to calculate body mass index (BMI)

Results

Table I: Socio-economic characteristics of the study population

	Kenya N=408	Malawi N=42 I	Uganda (N=434)
Age of women (years) Min – Max	28.5 ±7.5 17 - 56	29.6 ±8.3 15 - 70	29.5 ±9.2 17 - 75
BMI (kg/m²) Min – Max	23 ±4 13.5 - 45	23 ±3 16 - 36	23 ±4 16 - 45.5
Level of education (%)			
None	54.3	70.5	8.5
Primary	32.8	16.4	53.7
Secondary and higher	12.9	0.9	43.0
Reading capacity (%)	52.4	49.6	41.7

0% 9 8 Kenya Malawi Uganda

Figure 3: Prevalence of women achieving x number of food groups

- Overall women consumed mostly foods from the first group: grains, white tubers and plantain
 - Mean Minimum Dietary Diversity for Women (MDD-W) between the groups differs significantly

Table 2: Dietary Diversity Score (DDS) and MDD-W

1		Kenya N=408	Malawi N=421	Uganda (N=434)
	DDS (min 0—max 10)	4.2 ± 1.2	3.9 ± 1.4	4.3 ± 1.2
	MDD-W (%)	41	34	45
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*p ≤ 0.05

Conclusion

• Findings confirm a poorly diversified diet in all three regions

- Foods containing vitamin A, Iron and other micronutrients poorly consumed in some countries rather than others
- Low MDD-W rates indicate high risk of micronutrient deficiencies among women of reproductive age
- Interventions are needed to improve consumption of non-staple foods of small-scale farm families

References:

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2. FAO (2016). Compendium of indicators for nutrition-sensitive agriculture. Rome, Italy.

